

US009636005B2

# (12) United States Patent

### **Yoshino**

# (10) Patent No.: US 9,636,005 B2 (45) Date of Patent: May 2, 2017

#### (54) ENDOSCOPE SYSTEM HAVING LIGHT INTENSITY ADJUSTMENT WITH MOVABLE OPTICAL SYSTEM

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(\*) Notice: Subject to any disclaimer, the term of this patent is extended or adjusted under 35

U.S.C. 154(b) by 0 days.

(21) Appl. No.: 15/132,319

(22) Filed: Apr. 19, 2016

(65) **Prior Publication Data** 

US 2016/0227992 A1 Aug. 11, 2016

#### Related U.S. Application Data

(63) Continuation of application No. PCT/JP2015/055120, filed on Feb. 24, 2015.

# (30) Foreign Application Priority Data

Jun. 9, 2014 (JP) ...... 2014-118803

(51) **Int. Cl.**A61B 1/00 (2006.01)

A61B 1/04 (2006.01)

(Continued)

(52) **U.S. Cl.**CPC ....... *A61B 1/0638* (2013.01); *A61B 1/00006* (2013.01); *A61B 1/00009* (2013.01); (Continued)

# (58) Field of Classification Search

CPC ........... A61B 1/06; A61B 1/0638; A61B 1/00; A61B 1/04; A61B 1/07; A61B 1/00117; (Continued)

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#### (57) ABSTRACT

An endoscope system includes an optical transmission section that is provided in an endoscope inserted into an interior of a subject and transmits illuminating light to a distal end, a light source section that generates light, a first lens section that receives the light, from the light source section and emits the light with characteristics of different spatial intensity distributions, a second lens section that causes the light emitted from the first lens section to enter the proximal end of the optical transmission section, a distance adjusting section that can adjust a distance, and a control section that controls the distance adjusting section that adjusts the distance between the first lens section and the second lens section so that amounts of the light of a first and second wavelength bands have a predetermined ratio of amount of light.

#### 11 Claims, 8 Drawing Sheets

